

# reactivate

PUTTING  
**ACTIVITY**  
BACK INTO  
YOUR LIFE

■ GROWTH ■ RESILIENCE ■ ENERGY ■ ATTITUDE ■ TEAMWORK

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## BOUNCING BACK FROM ADVERSITY

In tough times focusing on the positives and a better future can be critical. Giving in to automatic negative thoughts (ANTs) can be predictive of failure. Resilience (your ability to bounce back from adversity) is a key to thriving. This is true for individuals as well as groups such as sports teams or work teams. I hope this newsletter helps you to understand what we can do and what we value in creating resilience in ourselves and our clients.



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# RESILIENCE

## Positive adaptation

**Can we expect to coach or manage our clients towards a goal of resilience without ourselves having a clear understanding of what behaviors we would expect a resilient person to exhibit?**

This article aims to clarify (if somewhat naively) what is expected. Our role as physiotherapists and support staff is to support the client (paradoxically) towards these behaviors, advocating lasting outcomes.

The terms resilient, resilience, and resiliency are often used by coaches, clinicians and media to describe responses of a person or team to incidents such as:

- Catastrophic injuries
- Prolonged slumps or
- Low mood and
- Multiple negative lifestyle factors

Resilience literally refers to the ability of a substance to recoil, spring back or resume its original

shape after bending, stretching or compressing. In humans it describes positive adaptation despite the presence of risk or adversity (Luthar & Cicchetti, 2000; Masten 1994).

Resilience is linked with mental toughness. Jones, Hanton and Connaughton (2007) proposed a framework for mental toughness in athletes. Mentally tough athletes possess the following attitudes:

- Intense self belief and focus
- Train effectively by using long term goals
- Controlling their environment
- They push themselves
- Compete effectively by handling pressure and by having self belief
- Can handle both success and failure well

The process of obtaining resilient qualities begins at a point in time when individuals are in a state of biopsychospiritual homeostasis (or equilibrium), or comfort zone in which they have adapted physically, mentally and spiritually to a set of good or bad circumstances (Richardson et al, 1990). They need sufficient protective factors such as self-efficacy, self-esteem and problem solving ability to buffer from adversity.

Once disruption to homeostasis occurs the athlete needs to return themselves to the equilibrium. Reintegration can be achieved either, dysfunctionally, maladaptively, homeostatically or resiliently. Resilient reintegration is most desirable and occurs when players not only make it through their adversity, but acquire additional protective factors in the process. The person returns to work from injury with a greater appreciation for work and life, a stronger work ethic and more able to cope with future adversity.

*Growth from adversity being the key message*

### Mindset and Resilience

The concept that growth and change is possible with simple, focused persistence. Very few successes are due to natural talent, in reality it's all about belief and hard work. We aim to integrate this concept of change at

every level of our treatments. The barriers to success are beliefs not abilities.

'The view you adopt for yourself profoundly affects the way you lead your life'. That intelligence, beliefs and any physical activity are not fixed, they can and do change with persistence and risk. Your true potential is as yet unknown.

People who believe their qualities are carved in stone ('the fixed mindset') find success necessary, repeatedly proving themselves. However they cope poorly with failure, believing that these qualities cannot change (why try harder).

People with 'the growth mindset' believe that the hand you are dealt is just a starting point of your success story. That qualities change with application and experience. Failure is just a call to improve and learn more, they develop a love of learning and are prepared to risk more in order to do so. They do not stand and fall on their success but rather define themselves in terms of growth. Why hide deficiencies rather than overcome them, the growth mindset allows people to thrive during challenging times and values the importance of risk and persistence. Culture today seems to value instant success, the natural and the gifted—this promotes the fixed mindset, Dweck challenges those values and encourages a different way of thinking.

### Summary

Resilience implies positive adaptation to adversity; it also focuses on persistence and growth as key behaviors rather than natural talent. We can support our clients with these simple messages, which if consistent and persistent enough may spark the heralded revelation and change in behavior we are aiming for.

### References

*Bouncing Back From Adversity: Athletes experiences of Resilience.* N Galli and R Vealey. Sports Psychologist, 2008.  
*Mindset* – book by Dr Carol Dweck 2007.

## Knee Osteoarthritis

### What is it?

Knee osteoarthritis is the most common form of arthritis and will affect approximately one third of people over the age of 65. It is a degenerative condition affecting the cartilage (weight bearing surfaces) inside the knee joint. Prevalence is equal in males and females up to the age of 50 and more common in females thereafter.

### Making a diagnosis

Symptoms normally include gradually increasing knee pain/stiffness over a period of months or even years usually associated with some swelling/deformity around the knee as the condition progresses. Symptoms will usually be worse upon rising or after prolonged periods of weight bearing activity.

Following a good history examination, your medical professional will make a diagnosis based on the following criteria:

- Joint Swelling
- Joint Tenderness
- Decreased Range of Movement
- Visible Joint Deformity (i.e. bone growths)
- X-ray results (if available)

### Management of Knee Osteoarthritis

There is strong evidence suggests that best management of osteoarthritis should involve:

- Exercise (both aerobic exercise and muscle strengthening)
- Weight loss and education
- Medication (including non steroidal anti-inflammatories and simple pain relief).
- Walking Aids
- Joint Replacement only when the above management has been explored and improvements ceased.

### There is some evidence to support:

- Joint support (i.e. wearing a knee brace)
- Heat
- Foot orthotics



- Acupuncture
- Glucosamine/Chondroitin based products (if of no obvious benefit over 3-4 months, not likely to help)
- Intra-articular cortisone injection

### Risk Factors

Risk factors for Osteoarthritis include:

- Overweight/Obesity
- Previous major knee trauma or surgery to the knee
- Genetic predisposition i.e. family history
- Weak thigh muscles
- Occupation

### The Role of Physiotherapy

Physiotherapists are well equipped to accurately diagnose and assist you in managing your osteoarthritis. We can help to create an exercise programme tailored to your specific needs and to fit in with your lifestyle. This can include access to gyms/swimming pools to perform training programmes or equally development of exercises to perform at home. We offer ongoing education/support and can monitor progress throughout the rehabilitation process increasing loads as necessary to achieve your pre-determined goals. If required we also can help facilitate further intervention with any other professionals such as podiatrists, nutritionists, personal trainers, doctors and surgeons.

**For more information please contact your nearest PHYSIOSOUTH clinic or call (03) 332 6487 and let us arrange an appointment for you.**

## Training for Power

The attainment of a performance goal, whether for sport or work often (but not always) includes rapid (power) movement. With all our regimes we start with a variable length of the following:

1. Preload – just getting used to resistance training, typically 2 sets x 20 reps,
2. Strength endurance – improving the muscular response to endurance training, typically 3 sets x 15 reps, with 1 minute rest, if possible progressing to muscular failure
3. Strength hypertrophy – this is tough, as it needs to be, 3-4 sets x 6-12 reps to failure with 2 minute rest
4. Strength – 4-5 sets x 6 reps to failure
5. Lastly power, incorporating rapid or faster movement. 4-8 sets of 1-4 reps, to failure.

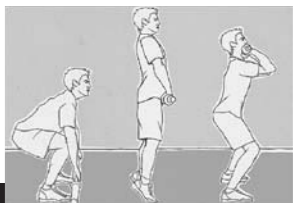
As you can see it's a process, and with pathology or injury steps need to be taken to ensure low joint load, whilst maximising muscular load. This is critical and requires experience and skill. So many programs fail due to overloading injured joints, but this is unnecessary.

Power is defined as: power = force x velocity. Sometimes conceptual difference between strength and power are hard to grasp. Strength is the capacity that a muscle group has to exert a force against a resistance at a specified speed. Once you are up to speed strength will maintain momentum. Power is the time rate of doing work. It refers to force that is exerted explosively, a sin acceleration.

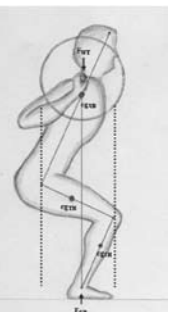
The last and most rapid power movement is 'plyometrics' A term described a mode of strength training originally called jump 'training'. It came from Eastern Bloc countries during the 1970s. In the early days plyometrics were for sports such as weight lifting and gymnastics. Nowadays plyometric drills and exercises are used by coaches in almost every sport that requires high energy output.

They are also very functional and can be essential in returning a heavy manual worker back to work function, especially if their job tasks involve maximum or rapid lifting or effort.

Typical exercises for power development include mainly multi-joint such as power cleans, dead lifts, squats and jumping activities for plyometrics.



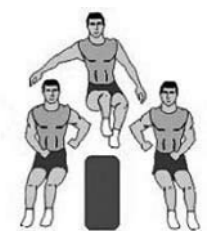
Power clean



Squat



Plyometrics



Plyometrics





## PHYSIOSOUTH In the Wild West

**Since May 2008 I have been making the journey through the Southern Alps to assist in alleviating a chronic shortage in physiotherapists on the South Island's West Coast.**

This initiative was started in response to a request by ACC who were struggling to meet the needs of their West Coast clients. It soon became apparent that the DHB were in great need of assistance as well. The DHB had closed their outpatient department and were staffed at less than 50 per cent. The DHB kindly provided a doctor's house for my use and transport was arranged to get me on site each week.

So what have I learnt from my time on the coast, how does this fit with **PHYSIOSOUTH'S** values? And what are some solutions for the future?

The current population of the West Coast is around 30,000 people, but the area itself is huge – stretching from Karamea to Jacksons Bay. People are prepared to travel up to six hours return for a 30 minute appointment and your time with them is gold. There is therefore an emphasis on self management and the treatment is heavily exercise-based. Liaison is crucial with other support people. This can include traditional sources such as GPs and specialists but the role of the rural nurse is critical in ensuring progress. Other resources include The

Green Prescription, the occasional gymnasium is available for use, private physiotherapists (there are only three for the whole West Coast!) and of course the client's own family and friends. Teamwork is an essential element in providing successful management.

One thing I am amazed by is the support people give each other. Family and friends often make great sacrifice to help, this is often without financial assistance or even a pat on the back. These people deserve a medal. Without this support people would not prosper on the coast and would struggle to rehabilitate with such limited resources. There is an abundance of resilient clients who are coping with adversity at the highest level.

There is an element of patient creativity with treatment. One striking example is a patient whom had a frozen shoulder that we were unable to improve despite some forceful treatment. He came in smiling one afternoon exclaiming that he had fixed his shoulder. He had attached his arm to a ceiling mounted grappling hook and lifted himself off the floor – in the process manipulating his shoulder joint – a procedure done occasionally by a surgeon with the person under a general anesthetic! There are many more examples of self management and creativity that are truly inspirational and give you a lot of energy to be creative in the same way.

It is critical for rehabilitation to keep people active while they are injured or off work. There are a limited number of job options on the coast with typical industries including fishing and fishery work, farming, coal mining, and those involved in the booming tourism sector. Some thriving industries have vanished from the coast, leaving many unemployed. Threats to industry are heavily political in nature but small businesses have to work hard and optimise efficiency. Due to the limited nature and quantity of work it is common to be treating long term ACC claimants and beneficiaries. Part of the challenge of working on the coast is trying to change attitudes and behaviors that are associated with extended time off work, and trying to find some meaningful direction with the use of exercise and a positive attitude as the weapon of choice: putting activity back into people lives.

The West Coast is a diverse area that is rich in history and a beautiful place to work. There continues to be a shortage of health practitioners in all fields and there is no immediate sign of this improving. Solutions are likely to be offered by way of financial incentives to medical staff, but the lifestyle and challenge of quality client management within the available resources is exciting and rewarding and should serve as a carrot for the right people. For me the work fulfils the **PHYSIOSOUTH** values of Energy, Attitude, Resilience and Teamwork in many ways. I continue to go to the Buller region on a fortnightly basis and look forward to contributing in a positive way to the health of the coast in the future.

**Andrew Strang, Physiotherapist**

